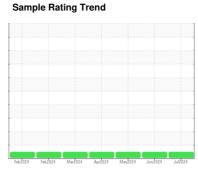


# **OIL ANALYSIS REPORT**



(4827UA) 834031 Natural Gas Engine {not provided} (--- GAI





# DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

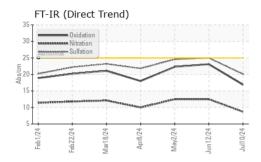
### Fluid Condition

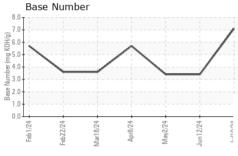
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

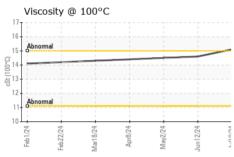
)		Feb 2024	Feb 2024 Mar 2024	Apr2024 May2024 Jun2024	Jul2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0127216	GFL0116547	GFL0116605
Sample Date		Client Info		10 Jul 2024	12 Jun 2024	02 May 2024
Machine Age	hrs	Client Info		1368	1207	929
Oil Age	hrs	Client Info		161	1207	929
Oil Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	10	44	42
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>9	3	2	2
Lead	ppm	ASTM D5185m	>30	<1	2	0
Copper	ppm	ASTM D5185m	>35	3	14	16
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		21	7	5
Barium	ppm	ASTM D5185m		<1	2	2
Molybdenum	ppm	ASTM D5185m		55	59	55
Manganese	ppm	ASTM D5185m		1	11	12
Magnesium	ppm	ASTM D5185m		587	742	794
Calcium	ppm	ASTM D5185m		1530	1390	1343
Phosphorus	ppm	ASTM D5185m				
	PPIII	ASTIVI DSTOSIII		731	721	721
Zinc	ppm	ASTM D5185m		731 971	721 1024	721 941
-						
-	ppm ppm	ASTM D5185m	limit/base	971	1024	941
Zinc Sulfur CONTAMINAN Silicon	ppm ppm	ASTM D5185m ASTM D5185m		971 2278	1024 2569	941 2599
Sulfur CONTAMINAN	ppm ppm	ASTM D5185m ASTM D5185m method		971 2278 current	1024 2569 history1	941 2599 history2
Sulfur  CONTAMINAN  Silicon  Sodium	ppm ppm TS	ASTM D5185m ASTM D5185m method ASTM D5185m	>+100	971 2278 current 7	1024 2569 history1	941 2599 history2 31
Sulfur  CONTAMINAN  Silicon  Sodium	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>+100	971 2278 current 7 2	1024 2569 history1 25	941 2599 history2 31 4
Sulfur  CONTAMINAN  Silicon  Sodium  Potassium  INFRA-RED	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>+100 >20	971 2278 current 7 2 2	1024 2569 history1 25 5 3	941 2599 history2 31 4 2
Sulfur  CONTAMINAN  Silicon  Sodium  Potassium  INFRA-RED  Soot %	ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	>+100 >20 limit/base	971 2278 current 7 2 2 current	1024 2569 history1 25 5 3 history1	941 2599 history2 31 4 2 history2
Sulfur  CONTAMINAN  Silicon  Sodium  Potassium	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	>+100 >20 limit/base >20	971 2278 current 7 2 2 current 0	1024 2569 history1 25 5 3 history1	941 2599 history2 31 4 2 history2
Sulfur  CONTAMINAN  Silicon  Sodium  Potassium  INFRA-RED  Soot %  Nitration	ppm ppm TS ppm ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m  method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method  *ASTM D7844  *ASTM D7624	>+100 >20 limit/base >20	971 2278  current 7 2 2 current 0 8.7	1024 2569 history1 25 5 3 history1 0 12.5	941 2599 history2 31 4 2 history2 0 12.5
Sulfur  CONTAMINAN  Silicon  Sodium  Potassium  INFRA-RED  Soot %  Nitration  Sulfation	ppm ppm TS ppm ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  Method  *ASTM D7844  *ASTM D7624  *ASTM D7415	>+100 >20 limit/base >20 >30 limit/base	971 2278  current 7 2 2 current 0 8.7 20.1	1024 2569 history1 25 5 3 history1 0 12.5 25.0	941 2599 history2 31 4 2 history2 0 12.5 24.6



# **OIL ANALYSIS REPORT**



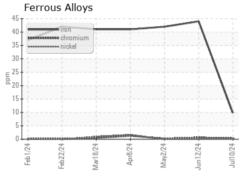




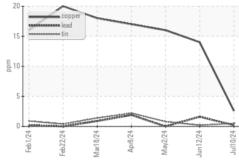
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

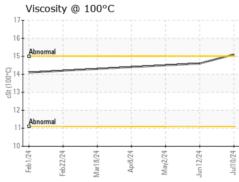
FLUID PROPERTIES		method			history2	
Visc @ 100°C	cSt	ASTM D445	15.1	14.6	14.5	

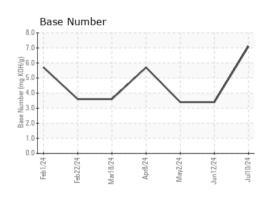
# **GRAPHS**



## Non-ferrous Metals











Certificate 12367

Laboratory Sample No. Unique Number : 11124377

: GFL0127216 Lab Number : 06235543

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 15 Jul 2024

**Tested** : 15 Jul 2024 Diagnosed : 16 Jul 2024 - Don Baldridge

GFL Environmental - 652 - Fredericksburg Hauling

10954 Houser Drive Fredericksburg, VA US 22408

Contact: WILLIAM MILO wmilo@gflenv.com

Test Package : FLEET To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) Report Id: GFL652 [WUSCAR] 06235543 (Generated: 07/16/2024 12:03:43) Rev: 1

Submitted By: TECHNICIAN ACCOUNT

T: F: